THE AMERICAN ARCHITECT AND BUILDING NEWS.

VOL. II.] Copyright, 1876, JAMES R. OSGOOD & CO. [NO. 77.

BOSTON, JUNE 16, 1877.

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THE last story of damage from bad building comes from Bridgeport, Conn., — at least, the latest at the time we write. A large and high building occupied as a hat factory was burned there a few days ago. One end of it was extended into a one-story addition, which was used as the counting-room or office; and while a dozen friendly volunteers were occupied in trying to rescue the safe and furniture of this office, the wall of the main factory fell upon it, and crushed them. The building was nearly three hundred feet long, fifty feet wide, with four stories and an attic, and the walls only twelve inches thick above the basement. Here then was a huge structure, built for manufacturing uses and to hold machinery, with walls fifty feet high, and carrying four floors, but no thicker than those of a common dwelling-house. More than half their substance was cut away, for the windows were four feet wide, and the piers between them only three feet and four inches. Apparently they were not tied across in their three hundred feet of length, for it is reported that when the floors burned away they fell outward. It is noticeable that this was the case with all the walls, the end ones crushing the two adjoining buildings. The tendency to do this is in itself an argument for not leaving people to build what walls they choose, since it endangers the public without, as well as the occupiers or benefactors who may be within. It is perhaps more than the most sanguine can expect, that the smaller towns throughout the country should fortify themselves with adequate building-laws: in Ohio this has been provided for by State legislation. A special difficulty in the Bridgeport case was, that the water in the street mains was soon exhausted, and the engines had to draw what little water they could from pools and swamps. There were hose in the building, but no water could be got from them, it is said. The destructiveness of other serious fires in Bridgeport has been attributed to the same cause, — a bad look-out for a town which depends for its prosperity upon its manufactures. The verdict of the coroner's jury says "that the supply of water from the hydrants was totally inadequate for the occasion; *for, had it been sufficient, the fire department could have stopped the conflagration, and thereby prevented the falling of the brick wall* which caused the sad deaths." This placid assurance will be a great encouragement to the builders of thin walls, as well as to the Bridgeport fire department. It only remains for the protection of towns, that a satisfactory equation should be established between scarcity of brick and abundance of water.

THE efforts which have been making in several of our cities to improve the housing of the poor inhabitants are gradually bringing out good results. We have alluded more than once to the success which has attended the Philadelphia plan of small separate houses, which however is still, we believe, without its counterpart in any other of our large cities. The experiment undertaken in Brookline not long ago by Mr. White — of building a block of tenements for low rent, but substantially, with careful planning for light and ventilation, for privacy and decent living, and made secure by fire-proof halls and stairways — has thus far proved, it is said, entirely successful. The block covers four ordinary building-lots, and is said to have cost about thirty thousand dollars, to which is to be added seven thousand for the price of the land. It contains forty shops on the ground floor, and above them forty tenements, which are let at an average rate of seven dollars and a half per month. These tenements were in demand from the time when they were ready for use, many people coming out from New York to occupy them, and have all remained full. Although the rents are moderate even for tenement-houses, they are said to yield a return of twelve per cent, which after allowing five per cent for taxes, insurance, repairs, and care of the building, leaves the satisfactory net income of seven per cent. This answers the question which has been a bugbear to capitalists, whether such well-built houses can be made to pay with poor tenants. Nevertheless the profitableness of it is somewhat explained by the fact which is given, that thus far there have been absolutely no defaulting tenants. This of course is exceptional, and implies that the building has attracted a better class of tenants than the average.

THE last annual report of the Boston Co-operative Building Society, which has lately been rendered, also gives some encouraging information. The society has tried a variety of experiments, with a variety of results. The most instructive part of its record is the comparison of its success in the new tenement-houses which it has built and its non-success in trying to redeem an old and disreputable one. Its new tenement-houses have proved fairly remunerative, paying a dividend of six or seven per cent, besides covering some losses on other investments, until the last year, when one-half the dividend was omitted. The tenement-house which the company tried to redeem was a miserable hive on Lincoln Street, surnamed in derision the Crystal Palace, of the worst reputation and construction; the tenements crowded upon long dark corridors and narrow stairs, with a nest of dirty privies, sleeping-rooms shut off from light and air, and a grog-shop in the building. It was a filthy haunt of the vicious poor. The company took the building on a five-years' lease, cleaned and repaired it, closed the lodging-rooms in the cellar, built wells for light and air, and did what could be done to improve it. For the first two years it was found that this also was profitable, but hard times brought the tenants into arrears. An effort to improve the character of the lodgers by sending away the bad ones proved still more unremunerative. It was found impossible to secure the kind of tenants that the company wished; the old stigma that had attached to the building could not be cleansed away. The lease began to prove a losing investment, and when it expired it was not renewed.

THE Boston Board of Trade held a special meeting last week to consider the question of education for industrial art, and appointed a committee to collect information and suggest action in its behalf. Mr. Walter Smith, State Director of Art Education, recounted his experience as an instructor, and recorded the progress of England from the time when at the exhibition of 1857 he found her occupying the lowest position in artistic manufacture, "with one exception, — the United States of America," up to the present time, when at the Centennial exhibition the English display surpassed all others in his opinion, and we believe in most persons'. He made a spirited appeal to the meeting to do away with the reproach that our people preferred foreign goods because there was not the necessary taste and skill in the country to make home goods of equal excellence, and that all our skilled workmen were imported; enforcing his appeal by the statement, which all Americans will hasten to accept, that our people are not inferior to any in natural fitness for artistic work. The value of the resolution and of the committee will depend on what follows from them; but the movement may indicate an interest from a new quarter in an undertaking which has been in hand for some time. Massachusetts, as is well known, has for several years been busy introducing into her schools the study of drawing for the uses of industrial art, under the direction of Mr. Smith, — a study which has thus far been prosecuted, it must be confessed, with rather more industry than art, but which has

excited an interest and acquired a momentum that may in time be turned to profitable use. Hitherto the movement there and elsewhere in the country has been due altogether to the activity of a few public-spirited men who have stimulated legislation in its behalf. The astonishing influence of the movement in England has been owing to the fact that it was fostered by the leading manufacturers, who have there encouraged it, and relied upon it, and developed it into a system which if not without patent faults, has at least marvellously improved the standing of British manufacture throughout the world. In this country they have simply stood aloof from it. The busiest manufacturers have neglected the artistic factor in their work, in favor of rapidity of production and cheapness. The leading manufacturers of decorative work, themselves mostly foreigners, are content to rely on foreign workmen whom they import, and prefer rather to stand jealously apart than to join hands in a work of improvement which would, they fancy, raise up rivals for them. We are not of those who have any jealousy of the foreigners that come to this country to do good work: we are glad to welcome them, but we shall be still more glad when we see those who drive the industrial interests of our country diverting a little of their energy from the struggle for rapid production, and uniting in a common effort — which will also have its profitable effect on the balance-sheet — to improve the artistic quality of their work, a thing in which we are so conspicuously inferior to other nations of what we consider the same rank in the scale of civilization.

AMERICAN towns, like most modern towns, are apt to be unfortunate in their adaptation to the natural advantages of their sites. They have usually been laid out or grown up at hap-hazard and straggling, without concert between the men who built them, and with no general plan; or else have been roughly adapted to some special notion of convenience, perhaps nothing better than the right angles of the surveyor's compass. Even where attempts have been made to beautify them, it has been mostly by disconnected and arbitrary projects with no reference to any general scheme, or to suggestions offered by the peculiarities of the sites themselves. A special interest will attach to the scheme that is in hand for beautifying the pretty town of Williamstown, Mass., as perhaps the first instance in the country where a town already existing has been taken up with the purpose of making the most of its natural characteristics, and applying a decorative landscape treatment to the whole town. Not long ago, Mr. Cyrus W. Field, a graduate of Williams College (which gives its name to the town), gave ten thousand dollars for the improvement of the college grounds and the adjacent parts of the town; and the committee to whom he gave the matter in charge wisely put the planning of it into the hands of Mr. Frederic Law Olmsted. The town is a small one, of some four thousand inhabitants, and lies on prettily broken ground in the picturesque county of Berkshire. The houses are chiefly collected about the colleges, stretching for a mile along the main street of the village, which is two hundred feet wide, and planted with elms in the good old fashion. Mr. Olmsted has prepared a plan for bringing all this part of the town into a single scheme of decorative treatment, terracing and planting and turfing, and adapting the whole embellishment to the suggestions which the lay of the land naturally furnishes, as well as to the convenience of the inhabitants; taking away fences and hedges, damming up a convenient stream to form a lake and waterfall, and converting the whole into a continuous park. The people of Williamstown have pride in their town; and it would seem that they take this project for embellishing it in good part, and second it kindly.

To fix the site of the former city and oracle of Dodona which, under guardianship of Jupiter and Dione, was the most ancient oracle of Greece, has always been a difficult question for geographers, who have been on the whole disposed to put it at the end of the little lake Jannina in Albania, the Turkish province that covers the ancient Epirus. Quite lately a gentleman of Jannina, Mr. Carapanos, has set the question at rest, it is is believed, by discovering in the neighboring valley of Sarocovitza, what seem to be the veritable remains of the old town and sanctuary. On a small eminence which rises out of the valley were found the ruins of a citadel or acropolis, with distinct indications of the sanctuary of Jupiter, and a *peribolus* or sacred enclosure within which was a small temple of Aphrodite. The accounts which we find in different French journals do not altogether correspond; but it appears that the temple or sanctuary of Jupiter was of moderate size, some sixty-five by one hundred and thirty feet, comprising three different structures, in one of which were found a great number of votive offerings and inscriptions. The larger enclosure or *peribolus* also contained remains of two or three small buildings, one of which was shown by a votive inscription to have been dedicated to Aphrodite. The objects found in the ruins number eighteen hundred, mostly of bronze, copper, and lead, including tablets, bas-reliefs, inscriptions, sacred utensils, statuettes both of men and animals. Among them are some hundreds of coins, of which the latest are said to bear the date of Constantine. The acropolis was triangular or rather quadrantal, in shape, and surrounded by a wall of which one side was curved and furnished with seven towers. There was also a very large theatre, of which the remains are better preserved than most. It included forty-five ranges of seats; and under the stage was found a narrow chamber or well, thirty feet deep, for which it is difficult to assign a use.

AT the same time, Gen. Read, the United States *chargé d'affaires* at Athens, writes of the discovery at that city of a monument of much historical interest. Thucydides mentions the setting up of a monument by Pisistratus, the son of Hippias and grandson of the tyrant Pisistratus; and lately the secretary of the Archæological Society of Athens, Mr. Commanverdis, has discovered on the right bank of the Ilissus, and not far from the temple of Jupiter Olympus, a neglected stone which bears the inscription, —

"This monument, upon his advent to power, Pisistratus the son of Hippias has dedicated in the temple of the Pythian Apollo."

It is assumed that the position of the stone marks the situation of the temple of Apollo, which has hitherto been unknown.

THE QUALIFICATIONS OF ARCHITECTS.

WE have spoken of the little care taken by the public to choose good architects, and the little effort made by it to command a better kind of building than that which it has lately been condemning so loudly and with so much reason, and of which with less reason it has been disposed to ascribe the whole responsibility to the incapacity and carelessness of architects and builders. It remains for us now to revert to the real fault which so much bad building betokens in our profession.

After all, though it is clear to us that the standards of building in this country are as high as the people on the whole demand and are yet ready to pay for, this by no means absolves architects as a body from responsibility in the matter. They are in a sense the trustees of the building of the country They are the confidential advisers of the men who build; it is from them that improvements in the methods of building have come for the most part, and are likely to come. Their influence, unless they lose it, is likely to tell very strongly, and will tell constantly, in favor of any standard of work which they choose to advocate, or against any which they reject. Where improvement is needed it is their business to lead the way. If there does not exist a demand for the best methods of building, it is theirs to create it; if the knowledge of them is lacking, it is theirs to promulgate it.

When we consider what are the qualifications of the profession as a whole for this work, we have to confess that we find it lacking. It is true that the public takes no great pains to encourage the best attainment in architects. But if the rank and file of the profession were what it should be and might be, they would not allow buildings to be put up under their direction, nor if they could help it from their designs, which were not securely and substantially built. The popular theory that an architect absolutely controls the manner in which his building shall be built is, we know, a fallacy. We know that he is in a majority of cases under pressure, and often subject to interference, which lead or

compel him to slighter work than he would prefer; but if architects commonly knew, as the best-trained of them do, just what was safe and wise, and if it were their universal habit to protest against and resist inadequate construction, not only would the work in their charge be greatly improved, and with it the general standard raised, but we are convinced that their own consideration and the public appreciation of their importance would be increased.

As it is, we find that a considerable part of the profession really knows nothing of the theory of construction, nor of any methods but those that are in common use under their eyes; that their only rule in practice is the rule of thumb. A good many of them, especially outside of the larger and older cities, are simply builders who, being more enterprising or ambitious than their fellows, have elected to become architects. A good many others are young men who having served for some time as draughtsmen in one or more offices, and learned the usual run of work, often without having had any other responsibility than to do as they were told, or having spent a year or two in an architectural school, consider themselves fitted to begin practice as architects. Of the first of these classes there is not much to be said. They are already a less proportion than they once were, and they will become fewer still as the general level of the profession rises, and their want of acquirement marks them off more distinctly from regularly educated architects. The imperfect education of the practitioners who assume to be architects only is the serious difficulty. There are a great many busy offices in which nobody is to be found who has even a rudimentary knowledge of the principles of construction; in which every thing is done by the mere tradition of the shop as much as it is by the workmen themselves; in which no one would ever so much as think of computing the strains of a truss or the strength of a pillar or girder, or would even know how it could be done. This thing did little harm a generation ago, when all building was pretty much alike, and few difficult or unusual problems were met with, especially when the traditions of builders were in favor of solid work, and material and labor, being less in demand, were less sparingly used than they now are. Since then, besides the growing tendency to slight building, the introduction of a new and costly material, iron, has brought new problems in construction, and by making economy in its use peculiarly important, has brought also great temptations to be stingy of it. At the same time, shops, warehouses, and public buildings must be much larger and fit for much harder service than they were thirty years ago. The greater freedom in design of our day, and the adaptation of buildings to many new wants, have greatly changed our ways of planning them, and are continually pushing construction to feats and experiments that were unthought of before. It follows that the means of learning to which it was safe for architects to trust in our fathers' day are not at all safe in ours. Mere traditions of work and the experience of what commonly goes on are no longer a sufficient guide. The exigencies of the time require of an architect a careful theoretical study of principles and methods of construction. The kind of judgment that comes of handling material and watching work, and which amounts to what is popularly called "gumption," is not adequate to modern occasions any more than theoretical knowledge is enough without it. It is not necessary, to be sure, that an architect should have the skill that is required to design a railway suspension bridge, but he ought to be able to meet readily the kind of problems that are likely to occur in building practice, and to solve them with precision. He ought especially — and here should be the virtue of his training — to be on the watch for difficulties and dangers, and not pass them over negligently when they occur.

One needs for this a kind of knowledge which is not abstruse or difficult, but can hardly be acquired in the work of an office. It is exactly the kind of knowledge which, being purely theoretical, is not to be picked up or learned by practice, but must be studied in books or under personal instruction. Few architects have any time to give to personal instruction of the pupils in their offices, and those who have any are naturally inclined to devote the little they can give to more purely architectural teaching or the more continually useful details of ordinary work. The student, therefore, unless he studies the theory of construction at school, is left to work it out by study in extra hours; and few students are to be found who have the "grit" to do this with what is to most of them a dry and forbidding study, or even who sufficiently feel the need of it. The routine of office work will not supply it, for the results of one problem do not guide a learner to the next; and in practical work the occasions for computation are too irregular and infrequent to furnish the necessary schooling. It is in the technical schools that the remedy is to be found. All of them provide courses of construction, and such courses ought to be considered an essential part of the training of a capable architect. Unfortunately, although an architectural education includes a great deal of work, most learners wish to hurry through it in a very short time. The study of design naturally engages the student's chief attention during the little while which he allows for his technical schooling, and the subordinate but still essential studies of construction go to the wall. The courses in the schools are necessarily more or less eclectic, and it is not easy to say to a student who will give only one or two years to the work of three or four that he must take part of his short allowance of time from what are really the cardinal studies of his profession, and give it to what a large proportion of his fellows neglect entirely, and what are of comparatively rare use, however important they may be to a thorough education.

The real cause of the imperfect training of architects lies in the haste of the young men of the profession to get into practice, and their consequent impatience of due preparation. The trouble is much aggravated by the ease with which young architects succeed in getting a certain amount of work to do. A beginner of no matter how little preparation finds some friend to intrust him with the building of a house, and from that moment he considers himself fully embarked in the practice of his profession. The ease with which this point is reached tempts young men to begin with the smallest modicum of preparation. The first step seems a long advance, and is seductively easy to take. After it comes the slow toiling up hill, and the painful learning by practice, amid a good deal of poor work and probably a good many disappointments, of the things which might have been much more quickly and satisfactorily learned under training. Half a dozen years pass, and the practitioner finds himself no further ahead in established practice than if he had spent half the time at study, and with many opportunities lost for learning what he now will either never acquire or will only learn under the compulsion of some mortifying failure. It is surprising how quickly in most men the engrossment of practice supersedes the zeal of the student, — how hard it is, when we have once stepped into the field, to resolve to study out deliberately any matter which is not directly involved in some work in hand or projected. To most the change is complete and irrevocable, and the spirit of study for its own sake is gone forever.

The charge of inadequate preparation is much more serious and damaging now than it was a few years ago, when the means for such preparation were not at hand as they are now. There are means provided in the architectural schools of the country which cover all the necessary ground. The demands on the profession have correspondingly increased, and call not only for a more thorough but a wider training. It will not take a long continuance of such misfortunes to buildings as we have seen lately to educate the public to the importance of skill in construction, and to arouse a demand for it. When the demand makes itself felt it will be well with those architects who have prepared themselves to meet it. The architects of the country have the excellence and solidity of its building more at heart than anybody else. They can do much — more than any other influence except that of actual disaster — to encourage a proper standard of building. They have in the last few years led the public into great revolutions in the designing and planning of their buildings. It is their part to lead it in this matter also, and not wait to be driven by it.

ARCHITECTURAL PROGRESS IN BOSTON. — I.

IT is related of Audubon, that when engaged in his great work, he left with a friend a package of drawings which had cost him the labor of two years. The package was to be cared for while he further prosecuted his studies; but when at length he returned from a long tramp and called for it, it was found that rats had so injured the contents as to render them worthless. For a moment he surveyed the ruins in despair; but rallying said, "I can do it all over again, and better than before." With these words he

shouldered his gun, turned once more to the woods, and there remained till his task was accomplished. How well it was done we all know, and that the last drawings were superior to the first we can well imagine, for the enthusiasm of the naturalist, aided by the experience he had gained, made it certain what the result would be.

I have been reminded of this anecdote while thinking of the Boston fire, and the energy and taste displayed in rebuilding the burnt portions of that city. It seems but a few months ago — so vivid is the impression left on the mind — that news was brought to us of the conflagration raging there; and when the magnitude of the fire was known, and that all human efforts to stay it were abortive, men's hearts quailed, and the stoutest stood aghast at the heaps of ruin when the flames were checked. But few, as they looked over that smoking waste, dared say that in a lifetime Boston would recover from so great a shock; even with help from abroad it seemed that she must be crippled for years, and that possibly the ground so suddenly lost would never be recovered. But in this how greatly have we been mistaken! With a stout heart, a firm reliance on self, and an indomitable will, she refused all aid, and as resolutely set about the work of rebuilding as did Audubon to make good his drawings. Nor was this all, for she not only labored to rebuild, but to improve on what had already been done, and so make a great calamity a public gain. How well the promise has been kept we all must see, and one who to-day treads her crooked streets, so recently a heap of ruins, will wonder, not that so much has been done in so short a time, but that it has been done so well. In architecture Boston has made greater strides in a given time than any other city I can call to mind. This can hardly be denied, but it has been met with the reply, "The great fire cleaned out much that was commonplace, and gave her the opportunity to build anew, — to exchange her brick for marble, her 'compo' for enduring stone." True, and she availed herself of her opportunity. Have other cities done likewise? It has been said of A. T. Stewart, that if he was a great shopkeeper (which we are all ready to allow) a combination of circumstances made the opening, and he, appearing at the auspicious moment, went with the current that led to fortune. But what if Stewart had not been equal to the emergency, had not been able to discern the set of the tide, the course of the current? should we ever have heard of him and his enormous wealth? Opportunities like that offered Boston have not been uncommon in America; how rarely have they been so well improved! New York in 1835 had a fire that burnt out the heart of one of the busiest portions of the city. It was a sight not to be forgotten; and well do I remember that I wondered, as I climbed over the heaps of ruin in Wall and Pearl Streets in search of trophies, when the loss would be made good. In time the "burnt district" was rebuilt; but who can tell, judging only from its architecture, where the new commenced, or what was done that was one whit in advance of any thing that had already been accomplished? What building is there of that date that New Yorkers are proud of, what one that raised or helped to raise the standard of our architecture? Certainly not the stores and warehouses, so like other stores and warehouses that line miles and miles of streets; nor do I believe they would care to instance the Exchange, much as was thought of it when its great shafts of granite taxed the resources of its builders to get them into place. That New York has made strides in its architecture I am ready to admit, but not in the same degree; nor can it accomplish all that may be done till there is less disposition to reproduce again and again, in part or as a whole, the façades of well-known buildings like that of the Pavilion Richelieu, — an ornate style that has captivated builders not only in the metropolis, but in other places. Boston, in common, yielded to the furor when this style came into notice; for when a city-hall was to be built, this same façade of the Pavilion Richelieu, shorn of the sculptured details that enriched the work of Visconti, was selected as the one best suited to the purpose. If the question were asked anew to-day possibly the answer might be different.

In all large cities the increase of trade, the growth of wealth, and the demand for new structures make frequent changes necessary, and buildings that in a less thickly populated community would do good service for generations are pulled down to give place to others better suited to the times and the ideas of builders. It is on this altar that so many of the old colonial houses of Boston have been offered up. Even King's Chapel, it was decided a few years ago, must yield to the pressing demand for more room; and but for the great fire, which for the time turned the current of thought in another direction, violent hands would ere this have been laid upon it. It is a landmark, and it is to be hoped that it will be left for many years, a memorial of the past.

The early architecture of Boston was of two types, and it is illustrated by two buildings, — King's Chapel and the Old South. The former is of the school that adhered to the Greek temple, adapting it to every possible use; the latter is known as the New England meeting-house style, which means the absence of architectural rules, proportions, and details, that in the eyes of the Puritans were associated with the house of Baal. The two schools were formerly pretty evenly divided; but the advocates of a more ornate style than that of the meeting-house ingrafted no new ideas on the old stock, nor did they do any thing to advance architecture. With them it mattered not to what use a building was to be put. Classic it must be, either Doric or Ionic; for they seldom resorted to the floriated Corinthian. They did not appear to have a thought or an idea that men could depart from this school; and so late as fifty years ago the sum and substance of an architect's training was to master the five orders and adapt them to modern wants. Boston was wedded to this "notion," and one of the leading architects of the past generation, Capt. Parris, has left evidence of his devotion to it in all parts of the city.

Prior to 1812 Parris was in successful practice in Boston, but was called away on the breaking out of the war, having entered the army as a volunteer. The war over, he returned to his profession of architect and engineer; and during his active career he built St. Paul's Church, the Massachusetts General Hospital, the Court House, Quincy Market, and many other structures, including many private residences. If we look at his public buildings we see the one idea, the adapting of the Greek temple to modern wants, and with the usual results. The pediment of St. Paul's is squeezed in between other buildings, greatly to its detriment, and the design itself is but a portico in front of an undecorated wall, with which it appears to have little or no connection. And in Quincy Market we have a Doric temple stretched out to an unconscionable length, a whole block, the two extremes being exactly alike. How many other buildings Parris would have designed (I cannot begin to give a list of those that came from his hand) if he had remained in the profession, it would be difficult to conjecture; but in 1830 he was appointed superintendent of the Charlestown Navy Yard, and remained in the employ of the Government up to the time of his death in 1852. He was greatly respected by all who knew him. Bryant, Hastings, and others were his pupils.

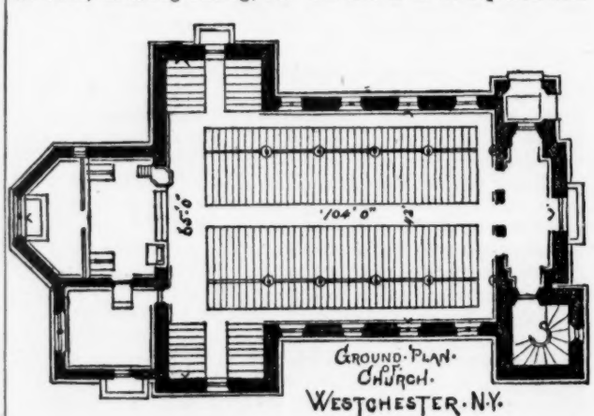
I mention these instances to show what a mania there has been in the past for Greek temples and Grecian details. We see it not only in some of the older churches and in the municipal buildings, but also in the hotels. The Revere has as much of it as could be well ingrafted on its front, and the entrance of the Tremont and the old United States are masked with Grecian columns. The Gothic has had no chance whatever, and when an effort was made to introduce it in Trinity Church, on Summer Street, it resulted in a failure, — the production of a great square machicolated tower, pierced with its one decorated window; the whole looking strangely out of place and painfully wanting as measured by the mediæval structures in the newer portions of the city. But every trace of it was swept away by the fire.

THE ILLUSTRATIONS.

RESTORATION OF ST. PETER'S CHURCH, WESTCHESTER, N.Y. MR. C. L. W. EIDLITZ, ARCHITECT.

(128 Broadway, New York, N.Y.)

THE church was originally built by Mr. Leopold Eidlitz in 1851, and burned down last winter. Its interior and roof were entirely of wood, including furring, etc. All this is to be replaced with



stone construction, by building a clere-story supported by granite columns, having marble capitals and bases, and by lining the interior walls with brick.

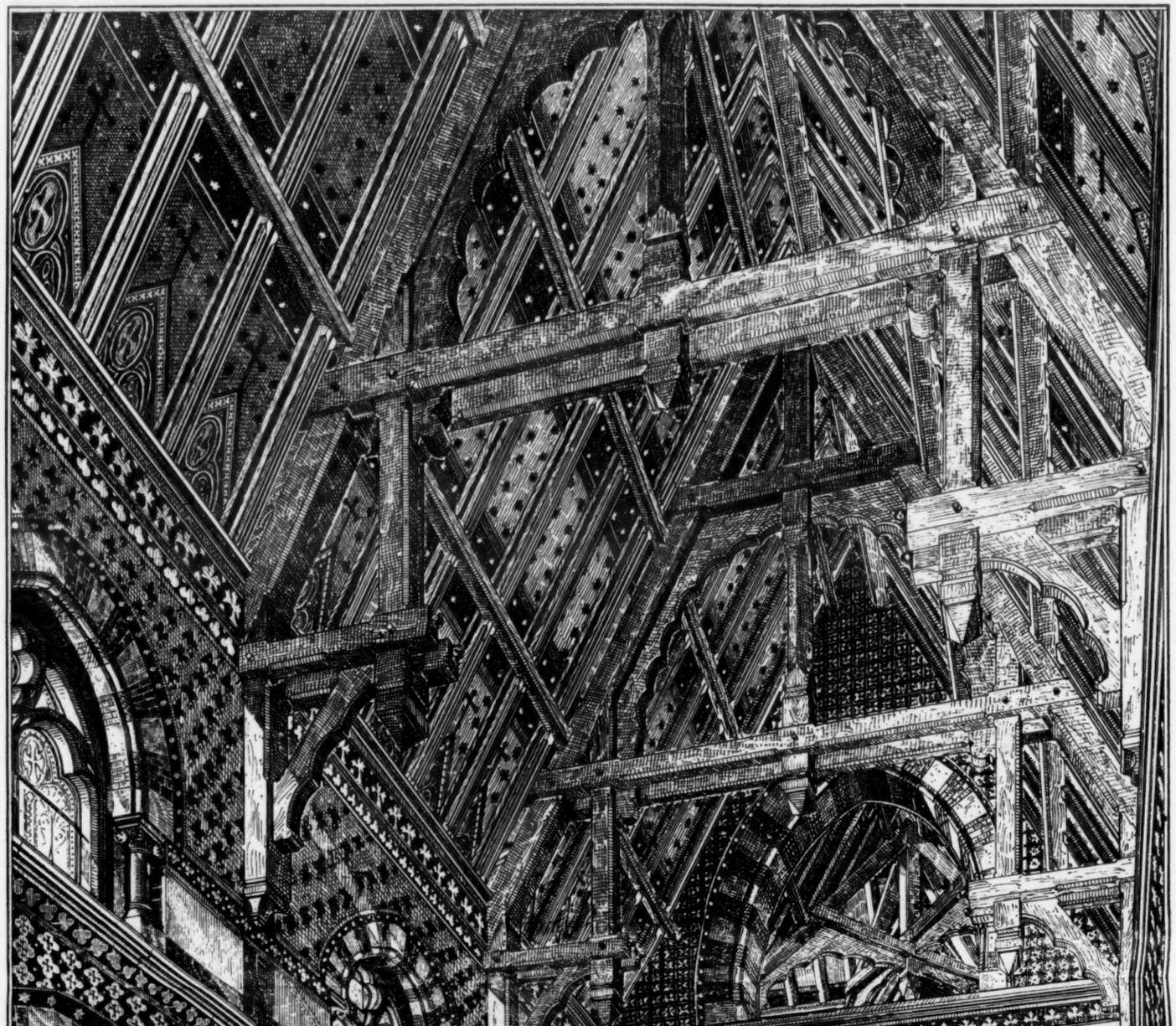
HOTEL KEMPTON, BERKELEY STREET, BOSTON, MASS. MESSRS. CUMMINGS AND SEARS, ARCHITECTS.

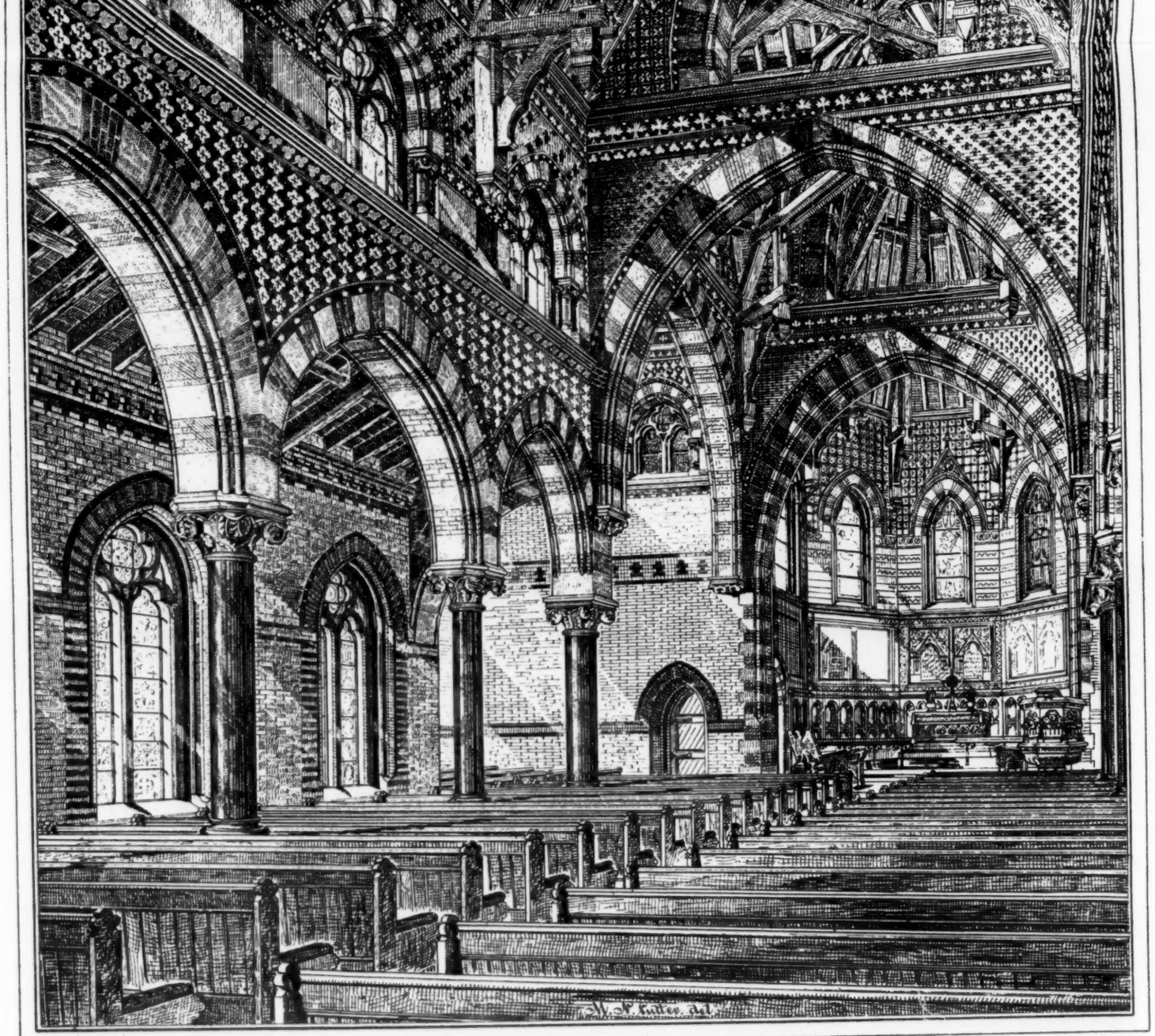
(9 Pemberton Square, Boston, Mass.)

This was one of the earliest apartment hotels built in Boston. It was finished about seven years ago at a cost of about $80,000. Its plan is chiefly peculiar in having no kitchens or dining-rooms for the various suites, all the tenants using the common dining-room as in an ordinary hotel or boarding house. We believe this hotel has the first water-elevator that was built in the city for the use of passengers.

RESTORATION OF ST. PETERS CHURCH. WESTCHESTER N.Y.

CYRUS. L. W. EIDLITZ. ARCHT.
128 BROADWAY, NEW YORK.





HELIOTYPE

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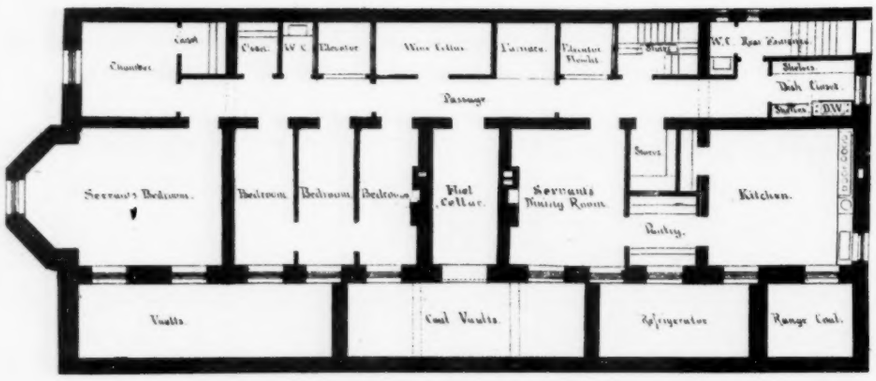

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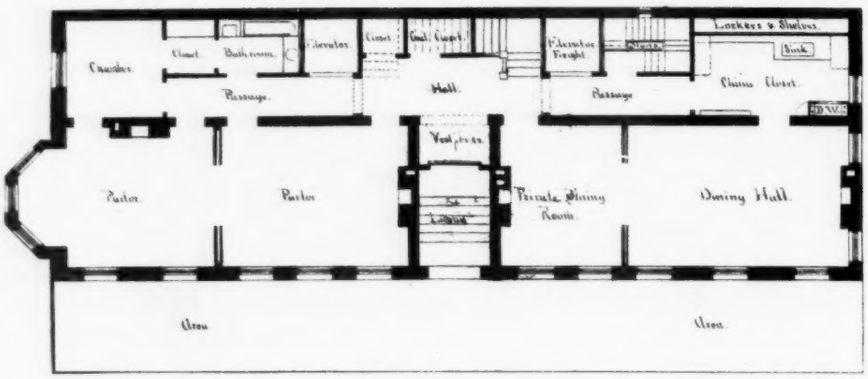

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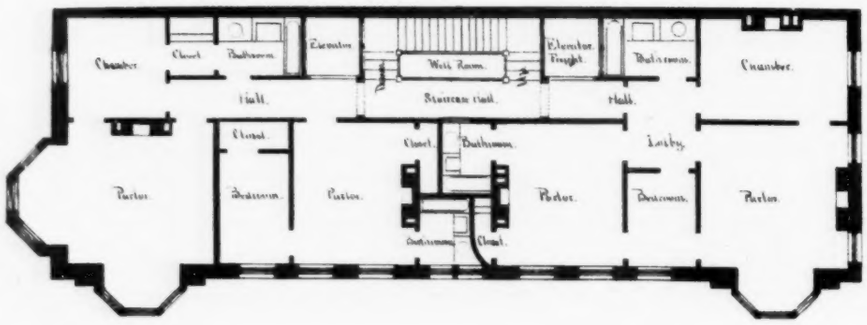

—SECOND FLOOR PLAN.—

—Hotel Kempton.—

—Cummings & Sears. Archts. — Boston, Mass.—

Scale of Feet.

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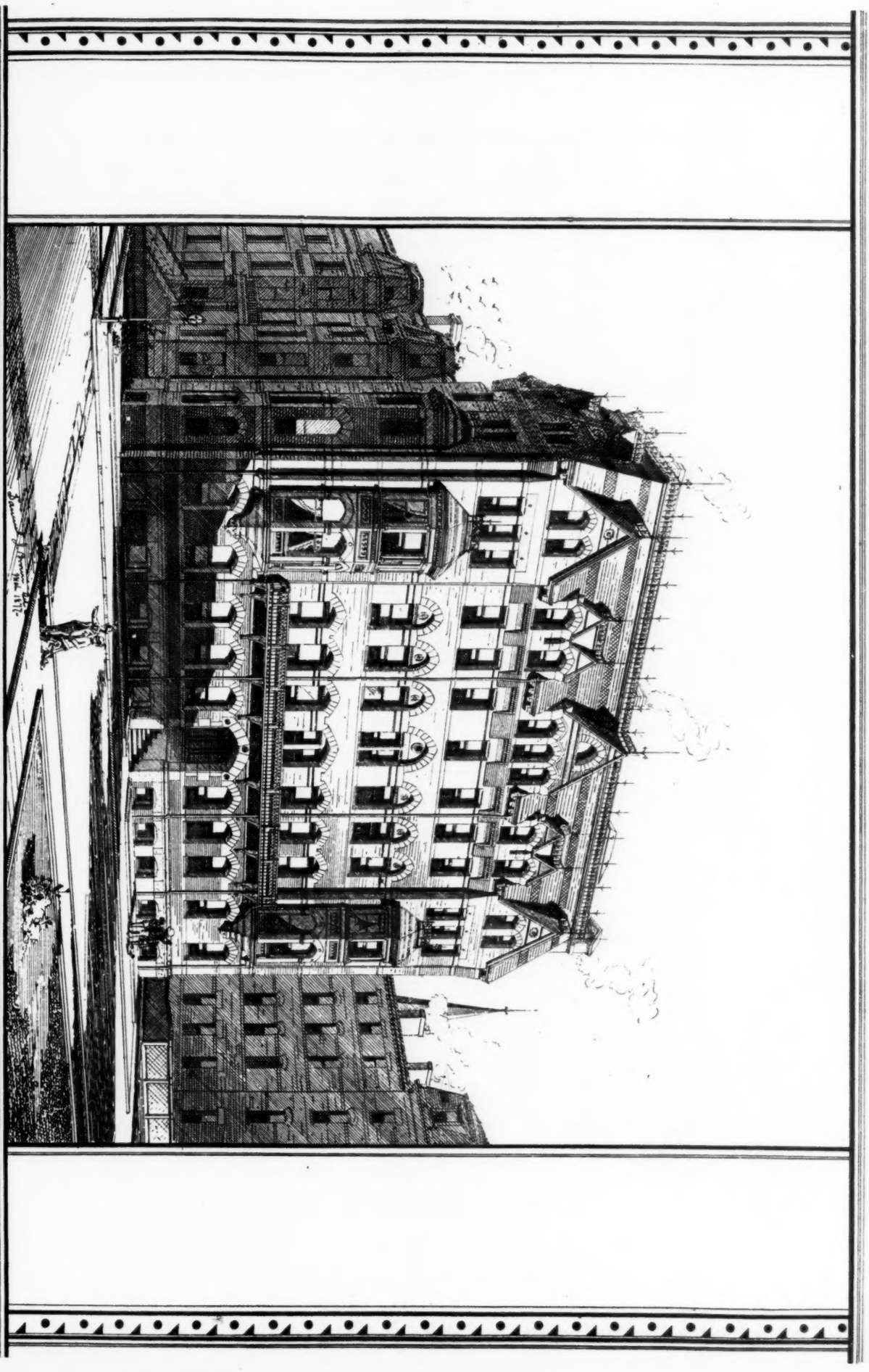
HOTEL KEMPTON
CUMMINGS & SEARS
ARCHTS
BOSTON
MASS
HELIOTYPE
JAMES R. OSGOOD & CO. BOSTON

CORRESPONDENCE.

ARCHITECTURE AT THE ROYAL ACADEMY. — I.

LONDON, 26 May, 1877.

THE art season is now in full swing. Besides the numerous smaller galleries, the Grosvenor — a new competitor for public favor — and the Royal Academy have been open for some weeks; and to judge by the crowds that daily throng the spacious rooms one would think we were a very art-loving people indeed. The architectural room at the Academy, however, is an exception to the general rule, in the way of crowding; in it we can breathe freely, and walk about at our ease, which shows our love of art is somewhat limited in its nature. Not that the collection of designs is below the average as the paintings at Burlington House are generally allowed to be this year, but that drawings of architecture fail to interest the public in the same sense that the works executed from them usually do, or else they are not understood by the majority of the visitors. From these and other causes, the architectural room is a haven of rest from the heat and the crowd of the more popular galleries, to the manifest advantage of those who wish to study the only public record of the year's work, in the collection of designs and drawings numbering some one hundred and sixty in all. In purpose the designs are pretty equally divided between ecclesiastic and domestic works, and in drawings between representations in color and in black and white by pen and ink; probably the former in both cases prevail to a greater extent than they did last year. There are no very important works; but on the other hand, there are few of a trivial nature, the bulk of the designs representing the ordinary routine work of the year. Two or three of the principal competitions are represented, though not always by the successful designs, such as the New Schools at Oxford and Cambridge; but others again, such as the new buildings at Leeds and Nottingham, are almost conspicuous by their absence.

In style our latest revival, the so-called Queen Anne, seems to hold its own, though it does not appear to have made the advance which could not fail to strike any one last year. Perhaps an exception to this remark may be made in favor of Mr. Jackson's Oxford Schools, to be noticed immediately as one of the most advanced and at the same time refined examples of the revival. The tendency seems rather to run after the features of the London Board Schools than to give us any thing fresh and original, to the manifest detriment of the style as such.

These is some good Gothic work, notably the churches of Messrs. Pearson, Bodley, and Shaw; but of classic architecture, properly so called, there is little or nothing calling for any special notice. Taking the drawings seriatim as they come in the catalogue, we find the list headed by an interior of the apse of Christ Church, Westminster (No. 1061), by Mr. A. Bickerdike, a very good "bit" of a well-known church, too well known for any further remark than that it is a very fair specimen of good modern Gothic. In Nos. 1062 and 1066 we have two of Mr. James Brooks's churches, the former at Donne in Scotland, and the latter at Lavender Hill, London. They are both in the strong severe semi-French phase of Gothic which Mr. Brooks affects. The church in Scotland is as unlike Scotch Gothic as it well could be; no effort has evidently been made to introduce any local or national features, which is to be regretted considering how much there is beautiful in the Gothic of the North. While the church at Lavender Hill is similar in its features to several others by the same author, but neither better nor worse, No. 1063, St. Paul's Church, Manchester, by Mr. J. O. Scott, is a very stringing and weak example of Gothic. No. 1064, Woodcote Hall, Salop, by Mr. F. P. Cockerell, shown by rather a weak drawing, is a very poor type of an English house in a free treatment of classic; it has a certain picturesqueness combined with its classical air, which goes to make up a very pleasing exterior, well balanced in its parts, and careful in its detail.

Noticing No. 1069, 64 New Bond Street, by Mr. Edis, as being with its weather-tiling and high pitched roof more like a country house and shop than a London one, clever though it is in design and treatment, we come to No. 1012, the Church of St. Margaret, Ilkley, by Mr. Norman Shaw. This is a large cruciform church in late Gothic; it is built on a most uneven site among hills, and consists of a nave with side aisles, transepts, and chancel, with a crypt or rooms under the latter. The view is taken from the north-east. No tower or spire breaks the long line of rather flat pitched roofs; only a simple but quaintly designed belfry marks the division between the chancel and nave. The windows of fifteenth century type are placed high in the walls; and the whole treatment is at once picturesque and admirably adapted to its surroundings. The drawing is in Mr. Shaw's best manner, and shows the character of the detail to great advantage. The church looks like old work, notwithstanding the originality of the design, so well has the true spirit of the style been caught and applied. The result also shows the tendency in favor of late Gothic, which has more than once been remarked in the works of the best men. Mr. Shaw's other contributions are not perhaps of equal power. They are No. 1086, two views of Merrist Wood, Surrey, almost a revival of a sixteenth century manor-house, though not by any means so interesting as some others of Mr. Shaw's houses; and No. 1103, Swan House, Chelsea, a riverside mansion in the Queen Anne style. It has nothing particularly worthy of remark except the peculiar manner in which the upper stories overhang the bay-windows of the lower. The bay-windows themselves are nicely designed, but the result of the treatment is not very happy.

In three richly colored drawings (Nos. 1078, 1089, and 1097) we have three views in the interior of the Church of the Holy Angels at Hoar Cross, near Burton-on-Trent, by Mr. G. F. Bodley. This is a church erected by a lady as a memorial to her husband. A view in the nave, and a couple of views in the chancel, show us how splendidly her intentions have been carried out. It is a cruciform church, with a square tower at the crossing; in style, late Gothic of the fourteenth-century type, most admirably designed and detailed. The tomb, with arched canopy over, is worthy of old work, so good is the detail, so excellent is the general design. We have here the work of a true artist, thoroughly English in its character, and worthy to take its place with the best of our old examples. This, like Mr. Shaw's, is *real* Gothic, — no French or Italian affectation, but deeply imbued with the spirit of the old work; thoroughly national and thoroughly true. From good work like this it seems but a step to the very fine old church shown in No. 1081, which is Sir G. G. Scott's proposed re-arrangement of the choir at Tewksbury Abbey. It is impossible to tell its value as a "restoration," unless a drawing had also been given of the church as it now exists; but it seems a simple and an appropriate arrangement, and is shown in a very fine drawing in pen and ink.

Passing a good drawing by Mr. Waterhouse, of the clock-tower of the Manchester Town Hall, we come to one of Mr. Street's clever pen-and-ink drawings, a view of the chapel and library at Dunecht, Aberdeen, — very clever also in design, but failing, we think, to catch the spirit of the Scotch work among which it is built. It is not Scotch Gothic, whatever it is, which is surprising in one with whom we thought local tradition would have had some considerable influence; nor, by the way, does it strike one as being very domestic, good Gothic though it is. Mr. Street's other contribution is St. Mary's Church, Southampton. This church is to be erected as a memorial of the late Bishop Wilberforce of Winchester. The view shown here is from the south-east, and is characteristic of Mr. Street's work in most of its leading features. Though it may have a family likeness to some others which have gone before, still it is a likeness to a very good family, and is in itself a very good church, full of good work, and handled in the masterly manner we expect from such an artist as Mr. G. E. Street, R.A.

In Nos. 1090 and 1098 we come to the designs by Mr. G. G. Scott, jun., submitted in the recent competition for the new Divinity Schools at Cambridge; the former in late Gothic, the latter in Queen Anne. With these it is interesting to compare Nos. 1137 and 1138, designs for the same work by Mr. Basil Champneys, the former Queen Anne the latter and successful design in late fifteenth-century Gothic. It is curious that both competitors should have sent in alternative designs, and in the same styles, each showing in a marked degree the individuality of their authors. Both the late Gothic designs are good and appropriate in every way to the university. Mr. Scott's Queen Anne design is also a quiet, artistic piece of work, almost more suitable to the purpose than those in Gothic; but Mr. Champney's in the same style is like a good deal of his Queen Anne, eccentric if picturesque, as if he strained after the oddities of the style rather than its beauties. We think it was a wise decision, even for his own sake, that the Committee chose his Gothic version rather than his Queen Anne; it is in much better taste all through, though even in it he can hardly help being quaint at the expense of artistic merit, and consequently we find some very questionable details introduced here and there. All objections apart, however, these designs are the work of true artists. From Cambridge to Oxford seems a natural procedure, so we next notice the designs for the New Examination Schools at the latter university; they hang side by side in Nos. 1153 and 1154, — the former, the successful design in Queen Anne, by Mr. T. G. Jackson, and the latter in late Gothic by Mr. Champneys. It is the view in the quadrangle Mr. Jackson sends, and though the drawing might be better it shows a thoroughly artistic design with many good points about it, notably the picturesque doorways in the angles of the "quad;" but of the most striking feature in the design, the front hall, we get no view, much to our regret, as the representation of the work is incomplete without it. This is one of the best works yet produced by the so-called revival: refined and dignified to a degree, it is yet quaint enough to attract the lover of the picturesque, and is withal the work of a true artist. Mr. Champneys' design for the same building (in late Gothic) is much better, to our thinking, than his Cambridge building. It is shown in a remarkably able pen-and-ink drawing, and is a vigorous and at the same time artistic piece of work. The general grouping and details are capital, much more so than his Divinity Schools just noticed, and if the Oxford competition came second his practice in the Cambridge one has stood him in good stead. Unsuccessful though it has been, it looks what it is, an important building in such a university as Oxford, and worthy of its place.

With these drawings must close our notes for the present, with the remark that as most of these designs have been or will be

published in the London architectural journals, and so will be seen by most of your readers, it has not been thought necessary to describe their features more fully before offering any criticism on particular points, as, with the help of such illustrations, a very fair acquaintance can be made with nearly all of them.

THE CHENEY BLOCK. — LONGMEADOW STONE. — THE HIGH SCHOOL. — THE RETREAT FOR INSANE. — THE THEOLOGICAL SEMINARY.

HARTFORD, CONN., June 11, 1877.

As a large insurance centre Hartford is well known; and to one of her companies is due perhaps the comparatively recent impetus to building — architectural building — which the city has received in the case of large secular structures. This was some ten years or more ago, when the late firm of Bryant and Rogers erected the huge pile of granite known as the Charter Oak Life Insurance Building, — a monument to the enterprise and wealth of the company, and one almost *ære perennius* to the professional skill of the architects. Before this building was completed, still another was in process of erection from their designs; and other companies, not to be outdone, expended goodly sums upon buildings of their own, until it seemed as though there was to be nothing of note in the form of public structures — churches excepted — save these Renaissance insurance palaces. But recently other corporations have come to the architectural front.

To-day Hartford is perhaps richer with architectural promise, than with the present fulfilment of professional work; but in consideration of the general severity of the times, which has clogged the wheels of progress, not a little building has taken place during the past season and is in prospect for the present one.

The completion of the new Cheney Block on one of the principal streets of the city will add another fine structure to the list of public buildings; and although its vast proportions were at first (in the eyes of the average beholder) something of an elephant, they were but a nine-days' wonder. The block is the property of the Messrs. Cheney, whose extensive manufactures of silk have placed them in the van of American manufacturers, and whose industry has built up a small community a few miles east of this city. The designs and plans of the block are by Messrs. Gambrill and Richardson of New York, or we might say of Trinity Church, Boston, as their names seem to be inseparably connected with that remarkable structure. The treatment of arched work and the construction of windows and many other features emphasize the particular style adopted by the architects in a large number of their more recent works. The materials used are the Longmeadow stone for the ashlar, laid up with rock face and Ohio stone, the latter furnishing the door and window caps, sills, etc. The string-courses in this stone are carved with much spirit, and add greatly to the expression of the façades.

The Longmeadow stone is deserving of extended mention on account of its color, although its formation is somewhat irregular, the stone being known as liver-rock. It is not as much of a favorite in this section of the country as it is in Massachusetts, the stone having a formidable rival in the Portland quarries, located a few miles below Hartford on the Connecticut River. While both these stones come under the head of dark ones, the Longmeadow has about it a slight suggestion of red which relieves it of the sombre cast of the Portland, and its use in ornamental work in connection with the Ohio is particularly good. An example of the combination in question is happily brought to mind in the recent building for Smith College at Northampton, Mass., where are miniature columns whose caps and bases are cut from light stone, the shaft being composed of the reddish sandstone from the Longmeadow quarries.

The Cheney Block has a frontage of 155 feet with a return on a side-street of 116 feet; it is five stories high, and is treated with a square corner tower having a pyramidal roof covered with tile; the front façade is relieved by curtain walls, and the lofty arched openings with which they are pierced extend through several stories enclosing the windows on each floor. The ground floor provides ample stores, while the floors above are divided into suites of rooms to be used either as offices or lodging apartments. The entrances to the block are far from spacious, and the hall-ways are narrow, the upper floors resembling an intricate network, while the corridor which occupies nearly the entire length of the block is open to criticism. A Masonic hall is on one of the upper stories. The building when completed will cost about $500,000.

In the matter of public schools, Hartford shares to a certain extent the pride of Boston. The demand for increased accommodations at the high school is a guaranty of the excellent management and success of the institution. The present building was erected in 1869, and last spring plans for important additions to it were made by Mr. Keller, an architect of this city, which are now in process of execution; they provide for a wing about 30 feet wide by 80 feet in length, the new schoolrooms furnishing seating capacity for 112 scholars. The work is under contracts for $22,000.

The Retreat for Insane which several years ago was remodelled by Messrs. Vaux, Withers and Co., of New York, is to have some important additions to its many buildings. They are to be built from Mr. Keller's plans and will embrace a series of structures 140 feet in length by 80 feet in width, which will enclose a court-yard to be used as a clothes-drying yard for the laundry. The buildings are to be used as the laundry, storage rooms, etc. The material used is to be a light granite to conform with that of the chapel lately erected. Important and much-needed alterations in the landscape architecture of the grounds upon the western frontage are also to be executed.

Among the new building-projects is the erection of buildings for the Theological Seminary, a Congregational institution which of late years has had its seat at Hartford. A superior site has already been purchased, the lot having a frontage of some two hundred feet upon an important street which is destined to become one of the principal thoroughfares of the city. Buildings two or more in number will provide accommodations for about fifty students. Pecuniarily, the institution is well circumstanced, and besides the possession of a good fund the annual income is in excess of current expenses. The date of building has not as yet been determined.

CHETWOOD.

SIR MATTHEW DIGBY WYATT.

IT is indeed a light of no ordinary magnitude in the artistic world that has been sadly extinguished in the death of Sir Digby Wyatt. A man universally popular, and more so perhaps for his intellectual accomplishments than for even his personal graces; one whose facile pencil was never at a loss, and whose sound scholarship was always at command; we have now to speak of him at last as an over-tasked student who, like too many others in these days, has succumbed to the intensity of his application, and whose energies, great as they were, have given way in the very prime of life before the vastness of his subject and the devotedness of his mind. It is well known that for several years past he has had to live entirely removed from the world of business; and it cannot be disguised that, but for that over-study in earlier life which is so fatal, however slow, in its effects, we ought in the ordinary course of nature to have possessed him in all his vigor for many years to come.

We must go back for more than thirty years to find Matthew Digby Wyatt first attracting attention as a student in Rome; and we may say that what brought him into notice then amongst his fellows and friends was the same character for accurate study and unwearied perseverance which he carried with him through life. His drawings of those classical and Renaissance subjects of which the Eternal City is full to overflowing were at once perceived to be those of a master in the practice of art; at the same time his thorough knowledge of all that was to be known by research and reading was beginning to be remarked upon as indicative of the eventful possession of such a store of information as few if any of his class had ever had to call upon.

When the organization of the details of the Great Exhibition of 1851 had to be undertaken, a young artist of this rare character was precisely the man to be employed in the task. Suffice it to say, that he was acknowledged to have done his part with the utmost ability and tact, and that the foundations of his fortune were laid.

It was not many years afterwards that his name became still more a household word with the public in connection with the construction of the Crystal Palace at Sydenham. Perhaps the feature in that astonishing edifice which most emphatically fixed the attention of all classes of the community was the Architectural Courts; and it became known that it was to Owen Jones and Digby Wyatt that we were indebted for these intellectual luxuries, and chiefly to the latter of these thenceforward inseparable friends in art. In other parts of the work also it was understood that both had contributed their invaluable aid; but Owen Jones was at least famous before, and Digby Wyatt became equally famous now. It is easy to argue that these Architectural Courts were never meant to be much more than a show for the vulgar. What has to be more particularly remembered is how easily, how very easily, they might have been a failure and indeed a laughing-stock; whereas on the contrary it would be vain to deny that they not only were pronounced an unexpected success at the time, but have retained their hold of public favor to this day — and not at all amongst the vulgar alone, but with the most intelligent of those who from all quarters of the country and of the world have visited the Crystal Palace for more than twenty years as an act of pleasant pilgrimage.

The close connection with Owen Jones which, thus begun, lasted through their joint lives, was eminently characteristic of the peculiar bent of Wyatt's mind. With all his unparalleled accumulation of architectural knowledge, as essentially the knowledge of the profession to which he had devoted himself, it was to the design of the ornamentalist that he seemed to turn, after all, with the greater cordiality. In the case of his friend it was considered that the impulse towards the same destiny had been more accidental; for it was the study of the Alhambra as a mere novelty of architecture which was supposed to have landed Owen Jones in ornamentation as a profession almost against his wish. With Jones, moreover, the ornamental fancy ran through life very much in a single channel; he had become identified with the Alhambra at the beginning, and, speaking in general terms, his instinctive style was that of the Alhambra to the end. Not so, however, with Wyatt, who, by com-

parison, may be almost said to have had no preference at all; his mind was charged, not with one mode, but with all modes equally.

Nor was even this all; for such was the capacity of his artistic intellect that not only all modes of one art, but all modes of all arts, seemed to be alike to his pencil. He was *par excellence* the "many-sided man" of his order; so much so that, although he made no secret of his preferences of taste, there was nothing he could not do, and do well, so far as a sheet of paper might take it. In other words, in all that draughtsmanship could accomplish, in whatever department of its wide application, he was the most scholarly of draughtsmen and the most versatile of designers.

In architecture properly so called, although it might have been supposed that the long practice of ornamentation had weakened his memory, and the continual changes of fashion distracted his fancy, it is said by one of his intimates that he was the only man in the profession who was prepared at any moment to throw off a sketch of design for any subject that might be directed, and in any recognized style that might be called for, and to do so, not at hap-hazard or in a way to require apology, but with the perfect ease and certitude of a master of the particular style. We may admit the possibility of exaggeration here, and yet perceive at the basis of such a bold assertion the presence of a very remarkable versatility of power of the highest order.

It was no disparagement of the accomplishments of so learned a designer when it was said, as no doubt it often was, that the possession of such facilities of memory must necessarily involve deficiencies of imagination. In other things besides artistic design it is well known that the scientific faculty and the imagination, if ever found to exist together in the same mind, are displayed, not only abnormally, but imperfectly. In this view of the case, the vast knowledge which Digby Wyatt had acquired would be regarded as a scientific knowledge, although of the imaginative arts. He had collected an infinite number of their examples, had classified them, had analyzed them perhaps, and extracted their principles, and so had stowed them away in the chambers of his memory to answer whatever call he might have to make upon them. A mind so stored with precedents for reproduction — thus runs the argument we refer to — is not found to possess that very different form of force which, instead of reproduction, effects creation. One designer in architecture, for example, works from the book; another works from the brain. The cyclopædist, therefore, whose book knowledge is infinite, must necessarily fail when he seeks to call up something which book knowledge does not comprehend; his work may be infallibly correct, but it cannot be novel. Without pursuing the argument further, it may perhaps be safely admitted that the mind of Sir Digby Wyatt was, in this sense, less imaginative than many; but at the same time it may fairly be replied that whether, in these days when authenticity goes for so much and originality for so little, the faculty of invention is inevitably preferable to that of correct reproduction, is a question by no means to be easily determined.

Still pursuing the same train of thought — for we are inclined to regard this astonishing versatility of knowledge as the chief point in his character — we may turn to the lectures delivered at Cambridge in the capacity of Slade Professor, and especially to the remarkable series belonging to the year 1870 and published immediately after their delivery. Nothing probably could be more entirely different from the treatment of art by such professors as Mr. Ruskin, Mr. Poynter, and Mr. Colvin, than the process adopted by Sir Digby Wyatt. "I stand before my audience," we might imagine him saying, "not as a critic, but as a working artist; not as a painter, a sculptor, an architect, but as a universal practitioner in all art whatsoever; and especially as an academical ornamentalist, one who has collected every thing that can be delineated, delineated every thing that can be collected, and read every thing that about such things has ever been written." His process was simplicity itself. First there was *Architecture*, in its history, its theory, its practice. Secondly there was *Sculpture*, in its history, its theory, its practice. Thirdly there was *Painting*, in its history ancient, its history modern, its theory, its practice. Lastly there was *Industrial Art*, ancient and modern; and so the end. Now nothing could be easier, of course, under this programme, than for such a person as one of the clever amateurs of our day, or even some smart professional lecturer in a polytechnic institution, to read up a dozen articles in the "Encyclopædia Britannica," and thus to string together a sufficient array of commonplace paragraphs to give to an uninitiated audience a vague idea of the existence of the arts and of the forms of their existence. But it is needless to remark that this is not what Sir Digby Wyatt laid before the students of Cambridge, and afterwards published to the world. One has only to look, for instance, however hastily, through the lectures on Painting, to see how thoughtfully the author had carried personal research through the whole subject, from the mere surface of criticism which he was almost ashamed to dwell upon to the very depths of philosophy into which he could not possibly profess to carry his hearers with him. So also is it with sculpture, the least understood if not the most recondite of all the arts; and so also with architecture, we need not say, in which he was unquestionably at home; and none the less with the industrial arts, with which he was equally familiar by profession. He was truly here also, as a many-sided man and a master of all the arts, such a one as we may not hope to look upon again.

In personal taste, Wyatt was certainly a classicist. Whatever may have been his knowledge of Gothic art, and however sincerely he may have regarded it with eclectic admiration, there was never in him that peculiar love of the picturesque in preference to the serene which leads an architect in these days to the mediæval ecclesiastical remains by an irresistible fascination. The European Renaissance, especially in its first Italian forms, no doubt was his especial delight; and we need not hesitate to add that in this was his success, whether as a draughtsman or as a designer, the most complete.

It is perhaps well — we say it with reverence and sorrow — that a man so gifted and so industrious should have passed away before old age had reduced him to the common level of humanity. He died, not of years, but of work. If he had put off his harness, it was because he was weary, not because he was old. The name of Sir Matthew Digby Wyatt will long be remembered with honor, as that of one who has done his task with honest hard work, and done it quickly and well. — *The Architect.*

NOTES AND CLIPPINGS.

THE MARYLAND STATE HOUSE. — The State House at Annapolis, erected more than a hundred years ago, is being restored by Mr. George A. Fredericks, a Baltimore architect. Complaint had been made of the state of decay into which the building was falling, the bad ventilation, poor heating-arrangements, etc.; so that the last Legislature made an appropriation of thirty thousand dollars for its repair. The walls were found in some places to be dangerously impaired in strength; and they are being made secure by underpinning and strong girders where required. The floors of the entire building have been renewed, and a new slate roof will be put on. The building has been newly roofed three times, as was discovered on examination; and each time the old roof of shingles or tin has been allowed to remain, and was merely covered over by the new one. New heating-apparatus will also be put in. But with all the improvements, care will be taken not to alter the appearance of the Senate Chambers, the scene of Washington's surrender of his commission after the glorious end of the Revolutionary War. All features in the building that are calculated to excite the veneration of visitors will be preserved as far as practicable.

ANOTHER SCAMPED PUBLIC BUILDING. — The following report upon the condition of the North Indiana Penitentiary at Michigan City, Ind., was recently presented to the directors: "We, the undersigned architects and builders, have made a full and thorough examination of the outside wall of foundation of the north wing of the cell-house of the Northern Indiana Prison, recently constructed, and find the same to be laid in mortar of a very inferior quality, and of small stone not of proper size, and very poorly bonded, and not in accordance with the specifications on file; and we deem it necessary for the safety of the building about to be erected, to excavate said outside wall foundation, and replace the same with proper material; and believe the interest of the State will be benefited thereby. — Thomas Miles, superintendent of works; D. Kennedy, city and government engineer; O. Schnieder, architect; Thomas Culburt, builder; Philip Ersling, builder; E. J. Green, builder." The rebuilding of this piece of work will delay the work of building the cell-houses some three weeks, and cause a loss to the State of about $5,000. Mr. William Myers of Fort Wayne was the builder, and received $7,000 for the same. The commissioners that accepted the work were unacquainted with this kind of work, and were therefore unable to detect that the builder was swindling the State; thus furnishing one more example of the inadvisability of intrusting important works to the supervision of a general building-committee.

THE THOMAS GARDEN PROJECT. — The subscription books of the Thomas Concert Garden Company are filling up beyond the expectations of the projectors. Already over thirty retailers have made arrangements to secure shops in the arcade on the street floor. The subscription of Mr. William H. Vanderbilt, which was promised by him before his departure to Europe, but which had not been placed formally upon the books, has been the subject of cable correspondence, and Mr. Vanderbilt has telegraphed that upon his return he will immediately make good his promised subscription.

A TRADES-UNION SUIT. — Judge Barrett of New York has recently given a decision which is quite important to trades-unions. Two men were expelled from the membership of a society organized under the general law of New York for the incorporation of charitable and like associations, to which they had paid assessments, because they violated a by-law which provides that its members shall not work for less than forty cents an hour. These men worked for thirty cents; and thereafter the society refused to receive their regular dues. They accordingly brought proceedings for a peremptory mandamus to compel their reinstatement. After hearing the case, the judge decided that such a by-law is "unreasonable and oppressive, and contrary to public policy. It limits," he declares, "the man's right to earn a livelihood in his own proper way, for conduct which is not inherently wrong, nor subversive of any benevolent or charitable purpose, and is therefore void." Judge Barrett issued a peremptory mandamus requiring the reinstatement of both men.

NORTH AND SOUTH AMERICAN RAILROAD. — We learn from *La Semaine des Constructeurs* that a scheme for a railroad connecting Buenos Ayres with San Francisco is now preparing in the latter city. The line would be about 6,000 miles in length.

THE WASHINGTON MONUMENT. — It is the determination of the friends of the Washington Monument project to complete the monument on its present foundation. The president has accordingly requested the engineers and officers composing the commission to investigate the stability of the foundation to meet in New York at an early day to consider and report upon the practicability and cost of giving additional spread to the foundation, so that the subject may be presented to Congress at the extra session in October next.

THE LAST OF THE CENTENNIAL BUILDINGS. — There was something very suggestive of the growth of mushrooms in the way the small buildings grew into being upon the Centennial grounds a year ago, — a growth whose rapidity has been outdone by the rapidity of their destruction. The Park Commissioners having found that certain buildings had not been removed from the grounds attempted to serve notices upon their various owners; but they had been sold and resold so many times that it was impossible to trace out the present owners, so notices were posted upon the buildings calling for their removal within five days. At the end of this time Gen. Thayer with a hundred and fifty laborers appeared upon the ground, and under the protection of a squad of the Park Guard proceeded to pull down the obstructing buildings. Their summary method of procedure was shown in their treatment of the Municipal Building, which was brought down by three pulls. Among the buildings so treated were the Michigan building, the Arkansas building, the Spanish barracks, several booths, stands, etc. Unfortunately among the buildings so destroyed was a building belonging to the United States Government and used for the exhibition of powder-testing machines, electrical apparatus, etc. One of its peculiarities was that, in case of the explosion of any material within, it would fall to pieces; in fact, the building was once demolished by an explosion of two hundred pounds of powder, and was reconstructed at Philadelphia, to show that the effect of an explosion within would merely cause it to come apart without the destruction of the material. Its second dissolution seems, however, to have been accomplished with less expenditure of force. This interference with its property the Government has resented; and the matter has been placed in the hands of the Attorney-General with instructions to proceed against the Finance Board of the Exhibition to recover damages.

FALL OF A CHURCH BELL. — As the sexton of the Congregational church at Newburg, Vt., was ringing the bell (which weighs about one thousand pounds) for evening services, June 3, Sunday, the iron standard upon which it is supported spread, and the bell fell with a crash about two feet, and would have crushed down through the bell-room and entry to the cellar, had it not been for the bulkhead door, which was partly open, and rested on some strong timbers. It was a narrow escape for the sexton. It is rather curious that an accident similar in its nature to the one which our New York correspondent mentioned lately as having nearly occurred at Binghamton, N.Y., should have happened so nearly at the same time.

THE WAR DEPARTMENT BUILDING. — Secretary McCrary has annulled the contract for the completion of the War Department building, and made a new one which will save thirty-three per centum.

THE PILGRIM MONUMENT. — The Hallowell (Me.) Granite Company has nearly completed the Goddess of Liberty which is to surmount the Pilgrims' Monument at Plymouth. The figure is forty-five feet high, and the stone from which one arm alone was cut weighed sixty tons. The company have also a colossal statue of David and Jonathan, which is nearly finished.

THE LAST OF TABLE ROCK. — On the 24th ultimo the last of what was so long known as Table Rock, at Niagara, broke off and fell into the river. The mass weighed nearly sixty tons, and up to 1876 over four thousand names of visitors had been carved upon it. The part which fell on the 24th composed only half of the original rock, the rest having fallen in. On Saturday, Jan. 1, 1829, a surface of the rock supposed to be the size of half an acre, forming the bed of Maiden Walk, broke loose, and was precipitated into the immense chasm below. The crash was heard for a distance of five miles, and the effects in the immediate neighborhood resembled the shock of an earthquake. The water running under the bank is supposed to have caused the fall on the 24th, and the shock when the rock struck the water was distinctly felt three miles from the fall. Several of the trees which stood on the rock are now seen standing in the river as erect as when in their original places on the rock. Where the rock shelved off from the bank, at a distance of twenty feet from the top, can be seen the root of a tree estimated to be two feet in diameter. It attracts considerable attention. — *Syracuse Standard.*

ALMOST AN ACCIDENT. — It is not an uncommon thing to test a bridge or floor by marching soldiers over it; and the anecdote that is told of the way that the theatre of the Palais Royal at Paris was tested in 1781 is known to our readers. It seems quite as heartless to test a society hall under the guise of friendship and fellowship, as was seemingly done at Shelburne Falls, Mass., on the 8th inst., where, during the dedication services of a new Odd Fellows' Hall, whereat a large number of visiting brothers were present, one of the girders of the building broke, causing the floor to settle. The audience was quietly dismissed, and no serious mishap occurred.

STATUES FOUND ON THE ISLAND OF MELOS. — Four marble statues have lately been found on the island of Melos, on the property of Mr. Nostarki. Among them is a statue of Poseidon in good condition. Other finds are reported.

THE SALON OF 1877. — Of the 4,616 works of art to be exhibited in this year's *salon* at Paris, only 83 are architectural designs.

CONCRETE BRIDGE. — At Seaton, England, a three-arch bridge is being built of concrete, on a new principle invented by Mr. Brannon, of London. The idea of the inventor is that concrete will for such work prove far more enduring than stone. The toll-house at the end of the bridge is being built on arches. Mr. Brannon suggests that by constructing cottages on arches, instead of on the solid ground, all fear of fever caused by exhalations from the soil would be avoided; and it is understood that Sir Walter Trevalyan, on whose estate the bridge is being built, is about to have a number of workmen's cottages built on that principle at Seaton.

CLEOPATRA'S NEEDLE. — The exhumation of Cleopatra's Needle has been completed. Eighteen inches of the apex are gone, and the corners are somewhat damaged; but otherwise it is in a fair condition.

THE VENDÔME COLUMN. — It is stated that M. Courbet has at length decided to pay for the re-erection of the Vendôme Column, asking only to have sufficient time granted him for the purpose. He is to be allowed to refund the expense of re-erecting the column, which was 323,091 francs, in yearly instalments of 10,000 francs.

STATUE OF BLANCHE OF BRITTANY. — A very curious specimen of statuary has just been placed in the Hotel Cluny at Paris. This is a statue of Blanche of Brittany, the wife of John I., Duke of Brittany, taken from her tomb in the Abbey de la Joie, near Hennebont. At the time it was made the art of casting in bronze was only known to bell-founders: hence this statue was wrought from copper with the hammer, and the pieces were soldered together upon a core of wood.

THE PNEUMATIC CLOCKS OF VIENNA. — A practical clockmaker, Mr. J. Fattorini, gives the following account of the system of regulating clocks which has been introduced into Vienna by an Austrian engineer, Herr C. A. Mayrhofer, who has hit upon the expedient of pneumatic tubes as a means of securing uniformity in the time of clocks in any part of the city: Tubes are laid in the street from the central station, in which is the "master clock," or rather two clocks working together; and should one get wrong, the other keeps in motion, and an alarm bell is rung to indicate to the attendant that something is wrong, and he at once rectifies it. The air is pumped from the station, and just as gas or water can be taken into houses by means of pipes, so can the pneumatic tubes be laid, and people can receive their time just as they get their water or gas, the tubes being always kept fully charged with air. Branches can be taken in any direction. A simple contrivance connected with the tubes and the clocks lets off a puff of air every minute or half-minute, and the fingers of the clocks are in that manner pushed forward with unerring accuracy, in accordance with the time indicated by the standard timepieces of the Observatory, so that exact uniformity can be maintained without difficulty in the time shown on any number of dials. Housekeepers and others can be relieved of the trouble of winding up their clocks, as nothing of this kind is required in the pneumatic system, which is worked in much the same way as the supply of gas or water, with this difference, however, that the clocks are self-acting in letting off the time. Endeavors have been made to use electricity in this way, but the changes of temperature and other difficulties have formed an insuperable bar to the adoption of electricity as a motive-power for any number of clocks. The weather has no effect on the air, so far as the working of the pneumatic clocks is concerned; and be it hot or be it cold, the little valve lets off its puff of air, and the clocks go accurately, in defiance of atmospherical influences. A small yearly charge is made for the clocks, and there is no further expense or trouble. The system has been in operation in Vienna for nearly four months, and has worked without a single hitch, so that people are beginning to realize the idea that time can be "laid on" in their houses as readily as either water or gas. Mr. Fattorini says that after a minute inspection, and inquiries made in every direction, he is of opinion that the inventor has solved a great difficulty, and that the adoption of this excellent system of timekeeping throughout the world is merely a question of time; as the merits of the invention become better known, its simplicity, cheapness, and accuracy being its principal recommendations, it would prove, he thinks, especially useful for public clocks.

THE PODESTÀ AT FLORENCE. — A correspondent of the *Academy* writes from Florence: "For some centuries now, the authorities here have been engaged in destroying the great works of their great artists. The clergy especially have done infinite mischief, and generations of bad artists and bad architects have been employed to degrade and in many cases irremediably injure some of the grandest and most beautiful works of their predecessors. . . . As yet the only successful restoration made in Florence is that of the palace of the Podestà." The Podestà, or Bargello as it is often called, was erected, as it now stands, in the fourteenth century by Agnolo Gaddi.

MOTIF. — The French word *motif*, used in an architectural sense, is newer even than the verb *motiver*, which was admitted into the Dictionary of the French Academy only since 1740. The substantive has three significations: (1) *Motif*, equivalent to our word "motive." (2) *Motif*, a term in music; for instance, *Motif principal, la phrase de chant qui domine dans tout le morceau.* (3) *Motif*, a term of architecture, "*se dit*," to repeat M. Littré's words, "*de certains sujets de sculpture — 'Près du cercle international se trouve le parc anglais dont le motif principal est une pagode de l'Inde.'*" The word should never be used in the sense of "detail."

WHITE CEMENT. — Herr O. Fahnejehn recommends as a white cement a mixture of 75 parts carefully washed chalk and 25 parts of washed kaolin, to be first calcined to a red heat, and then ground. The resulting powder is snow-white in color, or if the heat has been too great, of a bluish tinge. Either alone or mixed with a small percentage of gypsum, it makes an excellent hydraulic cement.